IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for a single card to support multiple types of network service, comprising:

   initializing the card, after a reset, by executing initialization software stored in a first memory with a ~~general purpose~~ first processor, the first memory and the first processor located on the card;

   detecting a first request to establish a first network connection that flows through the card;

   determining a first type of network service used by the first network connection;

   downloading in response to the determining, to second memory located on the card, software that is specific to the first type of network service;

   executing the software to process traffic over the first network connection according to the first type of network service, the software stored in ~~a~~ the second memory and the executing performed with a second processor, the second memory and the second processor located on the card;

   detecting a second request to establish a second network connection that flows through the card;

   determining a second type of network service used by the second network connection;

downloading in response to the determining a second type of network service, to the second memory located on the card, software that is specific to the second type of network service; and

executing the software that is specific to the second type of network service to process traffic over the second network connection according to the second type of network service, the software that is specific to the first type of network service being executed concurrently with the software that is specific to the second type of network service so that the card can simultaneously process traffic over the first connection and the second connection according to the first and second service types, respectively, the software that is specific to the second type of network service also stored in the second memory and the executing of the software that is specific to the second type of network service also performed with the second processor, neither the first nor the second processors being digital signal processors (DSPs).

2. (previously presented) The method of claim 1 further comprising configuring a switch to direct the traffic that is associated with the first network connection, after being received from a physical line that transported it, to the second processor that performs the executing of the software that is specific to the first type of network service.

3. (previously presented) The method of claim 2 wherein the second processor has access to the memory that the software that is specific to the first type of network service was downloaded into.

4. (previously presented) The method of claim 1 wherein at least one of the types of networking service is a voice transportation service.

5. (previously presented) The method of claim 1 wherein at least one of the types of networking service is an Asynchronous Transfer Mode (ATM) service.

6. (previously presented) The method of claim 1 wherein at least one of the types of networking service is a Frame Relay service.

Claims 7-27 (canceled)

28. (previously presented) A method, comprising:

initializing a card, after a reset, by executing initialization software stored in a first memory with a first processor, the first memory and the first processor located on the card, the first processor not a digital signal processor (DSP);

downloading a first software routine to the card so that the card can execute the first software routine, the downloading of the first software routine being in response to a connection of a first service type being attempted through the card, the first software routine being specific to the first type of networking service so that the card can provide the first type of networking service over a physical line that emanates from the card;

downloading a second software routine to the card, the downloading of

the second software routine being in response to a connection of a second

service type being attempted through the card, the card also able to execute the

second software routine, the second software routine being specific to the

second type of networking service so that the card can simultaneously provide

the second type of networking service over the physical line with the first type of

networking service; and,

executing the first and second software routine so as to simultaneously

provide the first and second types of networking service, the executing being

performed by a second processor with the first and second routines stored in a

second memory, the second processor and second memory located on the card,

the second processor not a digital signal processor (DSP).

29. (canceled).

30. (canceled).

31. (previously presented) The method of claim 28 wherein the physical

line transports framed traffic.

32. (original) The method of claim 31 wherein said physical line is a

T1/E1 physical line.

Appl. No. 09/270,297   5   081862.P146
Amdt. dated Mar. 30 2005

33. (previously presented) The method of claim 28 wherein one of the types of network service is a voice transportation service.

34. (previously presented) The method of claim 33 wherein another one of the types of network service is an ATM service.

35. (previously presented) The method of claim 33 wherein another one of the types of service is a Frame Relay service.

36. (previously presented) The method of claim 28 further comprising configuring a switch that is located on the card to route traffic between a line interface that is located on the card and the second.

37. - 39 (cancelled)

40. (previously presented) A card, comprising:

a) an interface to a physical line, the interface further comprising a line interface unit and a framer;

b) a plurality of digital signal processors (DSPs) and a plurality of processors that are not DSPs coupled to local memory resources, at least one of said processors that are not DSPs and the portion of said local memory resources coupled to said at least one of said processors to concurrently execute a plurality of service specific software routines that are each downloaded to said local memory resources as a consequence of connection manager software

Appl. No. 09/270,297   6   081862.P146
Amdt. dated Mar. 30 2005

deciding the card is to simultaneously provide a plurality of different networking service types over the physical line; and,

c) a switch coupled to the interface to receive ingress traffic from the interface, the switch to route the traffic toward the processors.

41. (previously presented) The card of claim 40 wherein one of the types of networking service further comprises a voice transportation service.

42. (previously presented) The card of claim 41 wherein the plurality of digital signal processors help to provide the voice transportation service.

43. (previously presented) The card of claim 40 wherein one of the types of networking service further comprises an ATM service.

44. (previously presented) The card of claim 40 wherein one of the types of networking service further comprises a Frame Relay service.

45. (previously presented) A card, comprising:

a) first means for interfacing to a physical line;

b) second means for storing a plurality of downloaded service specific software routines for at least two different types of service, said second means further comprising a first memory and a second memory;

c) third means for concurrently executing said plurality of downloaded service specific software routines if the card is to simultaneously provide a

Appl. No. 09/270,297   7   081862.P146
Amdt. dated Mar. 30 2005

plurality of different networking service types over the physical line, said third means further comprising a first processor and a second processor, said first processor coupled to said first memory, said second processor coupled to said second memory, neither of said first and second processors being digital signal processors (DSPs); and,

d) fourth means for receiving ingress traffic from the first means and routing the ingress traffic to the third means.

46. (previously presented) The card of claim 45 wherein one of the types of networking service further comprises a voice transportation service.

47. (previously presented) The card of claim 45 wherein one of the types of networking service further comprises an ATM service.

48. (previously presented) The card of claim 45 wherein one of the types of networking services further comprises Frame Relay.

49. (previously presented) A system comprising:

i) a card comprising:

a) a line interface unit coupled to a framer;

b) a first processor to at least run said card's boot code, said first processor not a digital signal processor (DSP);

c) a second processor, said second processor not a digital signal processor (DSP);

d) a plurality of digital signal processors (DSPs);

e) local memory resources coupled to said first and second

processors and said plurality of DSPs, said second processor to

transfer data between said plurality of DSPs and said local memory

resources, said local memory resources to be downloaded into with

individual software items, each of said individual software items

being specific to a different type of networking service, said card to

concurrently execute each of said downloaded software items, said

card capable of simultaneously supporting different types of

networking service over a line coupled to said line interface unit.

ii) connection management software to trigger the downloading of each

software item that is downloaded in response to, for each software item

that is downloaded, a realization that a connection characterized by a

network service type that the software item is designed to help implement

is to be supported by said card.

50. (previously presented) The system of claim 49 further comprising a

TDM switch electrically coupled between said framer and said local memory

resources.

51. (previously presented) The system of claim 50 wherein said TDM

switch is under software control.

52. (previously presented) The system of claim 49 further comprising a boot flash memory coupled to said first processor.

53. (previously presented) The system of claim 49 wherein said DSPs can form IP packets from ingress PCM traffic.

54. (previously presented) The system of claim 49 wherein said DSPs can form egress PCM traffic from IP packets.

55. (currently amended) A method, comprising:

initializing a card with a first processor that is not a digital signal processor (DSP);

deciding that a said card is to provide a networking service of a first type over a physical line;

downloading to said card a first software routine that is specific to said networking service of said first type;

deciding that said card is to provide a networking service of a second type over said physical line;

downloading to said card a second software routine that is specific to said networking service of said second type; and,

simultaneously providing said first and second types of networking service over said physical line by:

concurrently executing said software routines with a <u>second</u> processor on said card, wherein said <u>second</u> processor is not a digital signal processor (DSP);

and by,

concurrently operating a plurality of DSPs located on said card.

56. (previously presented) The method of claim 55 wherein said downloading is to memory resources on said card.

57. (previously presented) The method of claim 56 further comprising configuring a switch to route ingress traffic from said physical line toward said processor.

58. (previously presented) The method of claim 56 wherein at least one of said types of networking service is a voice transportation service.

59. (previously presented) The method of claim 56 wherein at least one of said types of networking service is an ATM service.

60. (previously presented) The method of claim 56 wherein at least one of said types of networking service is Frame Relay service.

61. (currently amended) An apparatus, comprising:

means for initializing a card with a first processor that is not a digital signal processor (DSP);

means for deciding that a said card is to provide a networking service of a first type over a physical line;

means for downloading to said card a first software routine that is specific to said networking service of said first type;

means for deciding that said card is to provide a networking service of a second type over said physical line;

means for downloading to said card a second software routine that is specific to said networking service of said second type; and,

means for simultaneously providing said first and second types of networking service over said physical line by:

concurrently executing said software routines with a second processor on said card, wherein said second processor is not a digital signal processor (DSP); and by,

simultaneously operating a plurality of DSPs located on said card.

62. (previously presented) The apparatus of claim 60 wherein said downloading is to memory resources on said card.

63. (previously presented) The apparatus of claim 60 further comprising means for configuring a switch to route ingress traffic from said physical line toward said processor.

64. (previously presented) The apparatus of claim 60 wherein at least one of said types of networking service is a voice transportation service.

65. (previously presented) The apparatus of claim 60 wherein at least one of said types of networking service is an ATM service.

66. (previously presented) The apparatus of claim 60 wherein at least one of said types of networking service is Frame Relay service.

67. (currently amended) A machine readable medium containing instructions which when executed by a processing system upon which a connection manager runs, cause said connection manager or perform a method, said method comprising:

in order to simultaneously provide first and second types of networking service over a card's physical line:

deciding that said card is to provide a networking service of a first type over said physical line;

downloading to said card a first software routine that is specific to said networking service of said first type;

deciding that said card is to provide a networking service of a second type over said physical line; and,

downloading to said card a second software routine that is specific to said networking service of said second type

said downloading to permit said card to:

concurrently execute said software routines with a processor on said card, wherein said processor is not a digital signal processor (DSP); and to, concurrently operate a plurality of DSPs located on said card, wherein said card is initialized by a second processor that is not a DSP.

68. (previously presented) The machine readable medium of claim 67 wherein at least one of said types of networking service is a voice transportation service.

69. (previously presented) The machine readable medium of claim 66 wherein at least one of said types of networking service is an ATM service.

70. (previously presented) The machine readable medium of claim 66 wherein at least one of said types of networking service is Frame Relay service.